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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,425	10/23/2003	Mihailo M. Stojancic	136.0002	9496
27997	7590	09/22/2006	EXAMINER	
PRIEST & GOLDSTEIN PLLC 5015 SOUTHPARK DRIVE SUITE 230 DURHAM, NC 27713-7736			ROJAS, MIDYS	
			ART UNIT	PAPER NUMBER
			2185	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/692,425	STOJANCIC, MIHAILO M.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Midys Rojas	2185	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/23/03</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group I (Claims 1-8) in the reply filed on 8/3/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 10/23/06 has been considered by the examiner.

### ***Drawings***

3. The drawings filed on 10/23/06 have been accepted by the examiner.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 2, 5, and 6 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 26, 2, and 6 of U.S. Patent No. 7,093,092. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application, although being narrower in scope, are only a subset of the limitation included in Patent 7,093,092. The claimed subject matter of Patent 7,093,092 covers the claimed subject matter of the instant application.

U.S. Patent 7,093,092 discloses a memory apparatus comprising: a plurality of memory banks, the number of memory banks determined by at least the number of **coordinates** within an n-dimension format, each bank is associated to one of the **coordinates** within the n-dimension format, each bank having at least a number of memory locations equal to the largest valid value for its associated coordinate; and a conversion module for converting a key into an n-dimension format, the n-dimension format defines a coordinate system where each coordinate represents a memory location within the associated memory bank, the conversion module storing the key into one memory location based on a policy, the policy being dependent on the coordinates defined by the n-dimension format. U.S. Patent 7,093,092 does not disclose the use of **ordinates**. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the memory apparatus of U.S. Patent 7,093,092 to use ordinates instead of coordinates since an ordinate is the y-component of an x-y coordinate and therefore, a coordinate already contains a ordinate.

For further explanation of this double patenting rejection, please see the table below:

Instant application 10/692,425	U.S. Patent 7,093,092
<p>Claim 1 - A prefix search key apparatus for storing a prefix key of a pre-assigned length comprising:</p> <p>a plurality of memory banks, the number of memory banks determined by at least the number of <b>ordinates</b> within an n-dimension representation, the n-dimension representation defining a coordinate system, each bank associated with one of the <b>ordinates</b> within the n-dimension representation, each bank having at least a number of memory locations equal to the largest valid value for its associated <b>ordinate</b>, each <b>ordinate</b> representing a memory location within the associated memory bank;</p> <p>a <b>format module for masking out one or more bits from an incoming key, the number of bits to be masked determined by the first prefix key length assigned to the</b></p>	<p>Claim 1 - A memory apparatus comprising:</p> <p>a plurality of memory banks, the number of memory banks determined by at least the number of coordinates within an n-dimension format, each bank is associated to one of the coordinates within the n-dimension format, each bank having at least a number of memory locations equal to the largest valid value for its associated coordinate; and a conversion module for converting a key into an n-dimension format, the n-dimension format defines a coordinate system where each coordinate represents a memory location within the associated memory bank, the conversion module storing the key into one memory location based on a policy, the policy being dependent on the coordinates defined by the n-dimension format.</p>

<p><b>prefix search key apparatus;</b> and a conversion module for converting the masked key into an n-dimension representation having a plurality of <b>ordinates</b>, the conversion module storing the masked key into one memory location as referenced by one of the plurality of <b>ordinates</b>.</p>	
<p>Claim 2- The apparatus of claim 1 wherein the incoming key comprises data extracted from an Internet protocol (IP) packet header.</p>	<p>Claim 26- The method of claim 25 wherein the incoming data key and the data keys represented in the database of data keys correspond to at least a portion of an Internet protocol address within a header of an Internet protocol packet.</p>
<p>Claim 5 - The apparatus of claim 1 further comprising:</p> <p>a key matching logic connected to the plurality of memory banks, the key matching logic comparing in a single step a masked key with prefix keys stored at each memory location defined by the n-dimension representation of the incoming key to determine the existence of the masked key.</p>	<p>Claim 2-The apparatus of claim 1 wherein the memory apparatus further comprising:</p> <p>a key matching logic connecting to the plurality of memory banks, the key matching logic compares in a single step an incoming key with keys stored at each memory location defined by the n-dimension representation of the incoming key to determine the existence of the incoming key.</p>

Claim 6- The apparatus of claim 1 wherein each memory location stores additional information associated with the prefix key, wherein additional information is a class indication, a virtual route indication, a virtual private network indication, or an adjacent table pointer and control indication.	Claim 6- The apparatus of claim 1 wherein each memory location stores additional information associated with the key.
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### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Midys Rojas whose telephone number is (571) 272-4207. The examiner can normally be reached on M-F 5:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sanjiv Shah can be reached on (571) 272-4098. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

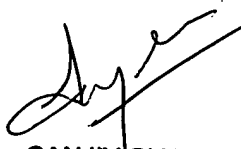
Art Unit: 2185

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 12, 2006

  
Midys Rojas  
Examiner  
Art Unit 2185

MR

  
SANJIV SHAH  
PRIMARY EXAMINER